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## Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claims 9 and 16 are amended.

Claim 15 is canceled.

## **Listing of Claims:**

- 1-8. (Canceled)
- 9. (Currently Amended) A method for producing a semiconductor device, comprising: forming a semiconductor member including a SiC member and a siGe member on a siC substrate by crystal growth; and forming an ohmic electrode on the semiconductor member, and forming a gate electrode on the SiC member.
- 10. (Original) A method for producing a semiconductor device according to claim 9, wherein the process of forming the semiconductor member by crystal growth includes forming a SiGe member on SiC member by crystal growth.
- 11. (Original) A method for producing a semiconductor device according to claim 9, wherein the process of forming the semiconductor member by crystal growth includes forming a Si member on a siC member by crystal growth; and forming a SiGe member on the Si member by crystal growth.
- 12. (Original) A method for producing a semiconductor device according to claim 9, wherein the process of forming the semiconductor member by crystal growth includes forming a semiconductor member, in which a mole fraction is varied continuously from SiC to Si and from Si to SiGe, on a SiC member by crystal growth.

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- 13. (Original) A method for producing a semiconductor device according to claim 9, wherein the process of forming the semiconductor member by crystal growth includes forming a semiconductor member, in which a C mole fraction is decreased wile a Ge mole fraction is increased continuously from SiC to SiGe, on a SiC member by crystal growth.
- 14. (Original) A method for producing a semiconductor device according to claim 9, wherein the semiconductor member is formed on both a p-type region and an n-type region by crystal growth
- 15. (Canceled)
- 16. (Currently Amended) A method for producing a semiconductor device according to claim [[15]]9, wherein the gate electrode is formed on a Si oxide film.